COP MANAGEMENT

PURPOSE

The purpose of this period of instruction is to introduce students to **COMMON OPERATIONAL PICTURE** management skills & functionality. The goal is to provide the Commander with an accurate graphical depiction of friendly and enemy forces to *increase situational awareness and facilitate DECISION MAKING.*
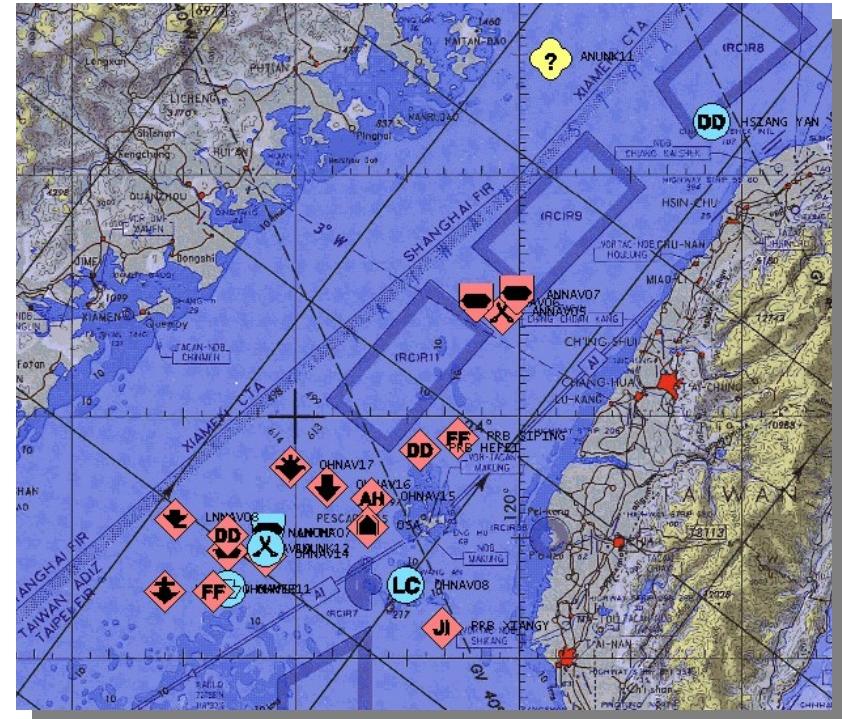
COURSE OVERVIEW

MSTP

- **COP Theory**
  - **IOS Installation**
  - **C2 Systems**
  - **Terms**
  - **Roles and Responsibilities**
  - **Command Support Relationships**

- **Intelligence Operations Server**
  - **System Administration**
  - **Track Processing & Management**

- **C2 Interoperability Lab**

GETTING ANSWERS

https://tacmobile.spawar.navy.mil

Help

http://www.mctssa.usmc.mil/

MSTP Forums   Man Pages

?

http://docs.sun.com
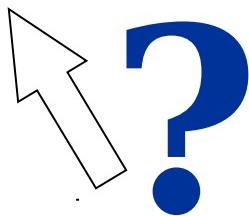
Theory of COP Management

IOS

Installing
Intelligence Operations Server

v1 INSTALLING

- ***Turn on IOS***
- When Initializing memory appears hit ***STOP A***
- ***Insert CD-ROM and DAT tape***
- ***Type*** *BOOT CDROM*
- Process takes approximately 60 minutes

```
                    IOS Restore

Building ios_comms System
Determine System Harddrive
Select Disk 0:
0)  c0t0d0
1)  c0t6d0
Selection:  0

Do you wish to start the IOS Restore to c0t0d0
now?  y

Press RETURN to continue.
```

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Command & Control Systems

C2 SYSTEMS

- Global Command Control System

- Intelligence Operations Server v1

- Intelligence Operations Server v2

- Advanced Field Artillery Tactical Data System

- Theater Battle Management Core System

- Command & Control Personal Computer (Application)

C2 SYSTEMS OVERVIEW

The purpose of this brief is to provide an understanding of various C2 systems employed by the Marine Corps and how they enhance the commander's warfighting capability.

C2 Systems We'll Cover:

– Global Command & Control System (GCCS)

– Intelligence Operations Server v1 & v2 (IOSv1/v2)

– Command & Control Personal Computer (C2PC)

– Data Automated Communications Terminal (DACT)

– Advanced Field Artillery Tactical Data System (AFATDS)

– Theater Battle Management Core Systems (TBMCS)

C2 SYSTEM ARCHITECTURE

LEGEND

- G GCCS
- A AFATDS
- I IOS
- T TBMCS
- C C2PC
- D DACT

XXX

MEF

RAOC

XX

FSSG

CSS

XX

Division

XX

MAW/TACC

III

CSSD

CSS

III

Regt

III

Regt

III

MAG

CO

BN

BTRY

BN

DASC

TAOC

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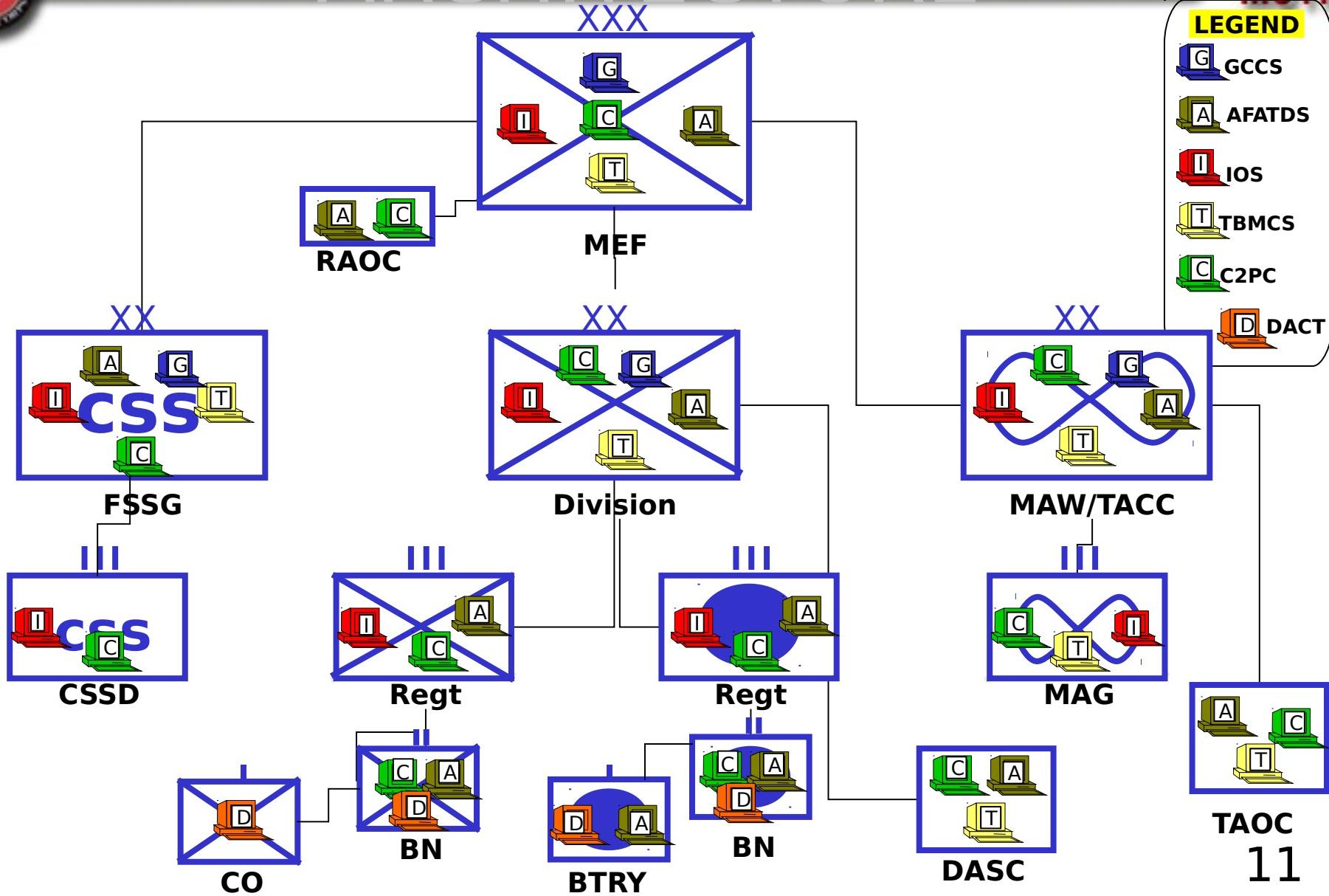
IOS v1 & v2

- V1 = *Operations* component of the MAGTF C4I software baseline

    V2 = *Intelligence* component of the MAGTF C4I software baseline
    –

- Current version – 3.3.2

- Common architecture provides information and applications supporting the USMC Warfighting Functions.

- Specs:
    - Sun Netra T1125
    - Two 36 GB Ultra-SCSI HD
    - Two 440 MHZ CPU(s) Ultra-Sparc-II
    - 1 GB RAM
    - Solaris 2.5.1

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CAPABILITIES

- **Core Services:**
  - Common Operational Picture (COP)
  - Common Tactical Picture
  - COP Synchronization Tools
  - Communications/Messaging Functionality
  - Sendmail/Netscape Message Email
  - Netscape Browser & Web Server
  - Domain Name Services (DNS) Server
  - Domain Name Services (DNS) Client
  - Internet Relay Chat (IRC) Server
  - Internet Relat Chat (IRC) Client
  - Go-Global X-Server (For remote windowing)

- **Interface with:**
  - GCCS
  - AFTADS
  - TBMCS

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GLOBAL COMMAND & CONTROL SYSTEM

- Two Primary Areas of Functionality:
  - **Force Deployment Planning and Execution**
    - **Joint Operational Planning and Execution System (JOPES)**
      - **Deliberate Planning**
      - **Crisis Action Planning & Execution**
  - **Situational Awareness**
    - **Acts as Joint Track Database Manager (Top COP)**
    - **Acts as Joint MIDB (Modernized Integrated Database) Server**
    - **Fuses, displays and disseminates products, information, and reports from all active elements of the battle space in both the Joint and Multi-National arena's**

AFATDS

Advanced Field Artillery Tactical Data System

ATTRIBUTES

- ***Fire Support*** **component of the MAGTF C4I software baseline**

- **A multi-service automated Command & Control System designed for Fire Support Operations which Integrates Tactical and Technical Fire Direction with Fire Support Coordination .**

- **AFATDS Functionality**

  - **Fire Support Planning**
  - **Fire Support Execution**
  - **Fire Support Coordination**
  - **Movement Control**
  - **Unit Management & Logistics**
  - **Situational Awareness (COP)**

FUNCTIONALITY

- **Fire Support Planning**

- **Fire Support Execution**

- **Fire Support Coordination**

- **Movement Control**

- **Unit Management & Logistics**

- **Situational Awareness**

TBMCS

**THEATER
BATTLE
MANAGEMENT
CORE
SYSTEMS**

TBMCS PROVIDES

- ATO and ACO production
- Air Battle Planning
- Air Battle Execution Management
- Situation and target analysis
- Enemy-course-of-action prediction
- Collection-management support
- Maintains local Order-of-Battle and threat databases

- Air Defense Artillery and Friendly Unit Aircraft Reports
- Surface Command and Control Reports
- Missiles, Mission, Base Reports
- Verify effective utilization of offensive, defensive and support assets
- Verify that mission support needs are satisfied
- Manage and de-conflict Airspace
- Generate, change and monitor the Airspace Control Order
- Verify the consistency and completeness of the Air Battle Plan and
  Air Tasking Order

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TBMCS COMMON APPLICATIONS

- Internet Relay Chat (IRC): Public chat room
- TK Talk: "Point to Point", Chat on Demand Chat Program
- Distribution List Management: Address book for User Alerts
- User Alerts: Similar to CTAPS System Message Alerts (SMA's)
- Netscape Email: Internet Email
- IRIS: USMTF Message Handler

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DACT

- Ruggedized handheld computer (RHC) running Command & Control Compact Edition (C2CE) and Microsoft Windows Software.

- Two Types
  - Mounted (M-DACT)
  - Dismounted (D-DACT)

- The DACT will allow lower echelon commanders the ability to maintain situational awareness of the battlefield.

- Ability to display and manipulate Operational Graphics.

TERMS & DEFINITIONS

Sempertoons.com
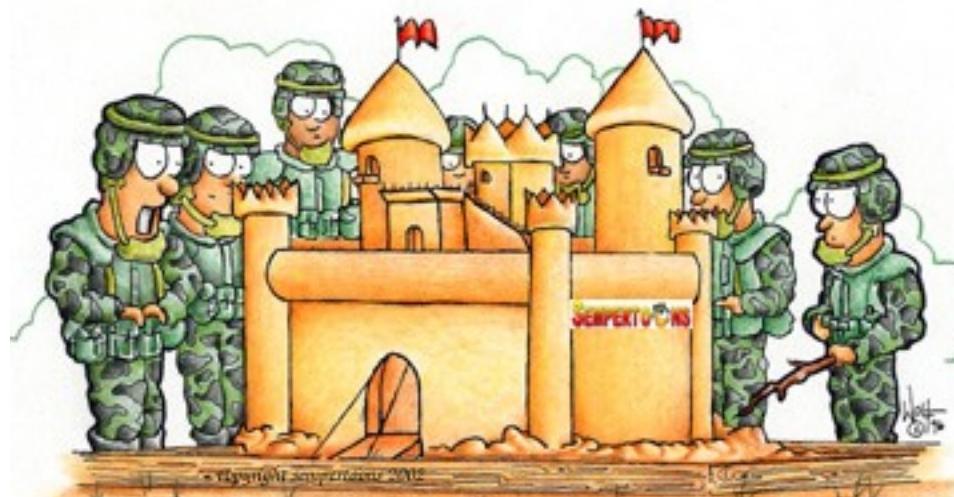
"HATE TO BUST YOUR BUBBLE DEVIL DOG, BUT CAMELOT WAS JUST THE CODE NAME FOR THE OBJECTIVE!!"

COMMON PICTURE

A Common Picture is a graphic display combining focused views representing each functional area. These areas correlate with the traditional Warfighting disciplines of Maneuver, Intelligence, Fires and Logistics. The disciplines not represented by a specific common picture area C2 and Force Protection. Command and Control is considered inherent to all views and therefore does not have an independent picture. Force Protection, is a derivative of all views and is supported by the overarching picture.

TERM DEFINITIONS

COP
Common Operational Picture

The Common Operational Picture is a dynamic graphical representation of all active elements of the battlespace and all products of those elements within the given Area of Operations (AO).   The purpose of the Common Operational Picture is to provide the force commander with complete situational awareness and is a key element of the decision making process.

TERM DEFINITIONS

CTP
Common Tactical Picture

The Common Tactical Picture is a dynamic graphical representation of those elements of the battlespace pertaining to Maneuver, Fires and Intelligence. The purpose of the Common Tactical Picture is to provide the tactical commander with the information necessary to make battlefield decisions.

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TERM DEFINITIONS

CMP
Common Maneuver Picture

The Common Maneuver Picture is a dynamic graphical representation of all friendly maneuver elements and geometries, whether surface, subsurface or land. The purpose of the Common Maneuver Picture is to provide unit commanders with an accurate picture of the Blue Force Array within the battlespace.

TERM DEFINITIONS

IAP
Integrated Air Picture

The Integrated Air Picture is a dynamic graphical representation of the air space within a given AO. This picture includes air traffic and supporting intelligence data such as enemy air defense assets, radar ranges, etc… as well as friendly ground information. The purpose of the IAP is to act as an aid to air operations planning and execution.

TERM DEFINITIONS

CIP

Common Intelligence Picture

The Common Intelligence Picture is a graphic representation of those elements of the battlefield and are not under the control of friendly forces. Examples of this could include enemy disposition, weather/terrain data and imagery. The purpose of the Common Intelligence Picture is to provide an all-inclusive picture of the obstacles and threat throughout the Area of Operations (AO).

TERM DEFINITIONS

TDBM
Track DataBase Manager

The Track Database Manager is a term which is often applied to the server which houses the program that collects, indexes and disseminates track information gleaned from a variety of sources.

TERM DEFINITIONS

Track Management

The continuous process of ensuring the Track Database is accurate, free of ambiguities and duplicate or erroneous track data.

TERM DEFINITIONS

COP Management

The continuous process of ensuring the IAP, CLP, CTP, CIP and other injected datum remains free of ambiguities, duplicate or erroneous track data.

MIDB

- MIDB Order of Battle data contains all valid textual and graphical information about enemy sites, facilities and units.
- Typical MIDB products and outputs include:
    - Facility Location List by Country and Category with Remarks
    - Facilities with Associated Units on Equipment, Facility Equipment, and Facility Remarks
    - Facility Listing BE Number/Category Sort, Facilities with Associated Units, Equipment, and Remarks
    - Facility Location List by Country and Category
    - Equipment On-Hand Quantities by Facility and Unit Name
    - Equipment List by Force and Primary Function
    - Active GOB Related Facilities by Category
    - Facility Location List with Vulnerabilities and Remarks
    - Defensive Missile Order of Battle
    - Target Materials Planning Document
    - Target Nomination List
    - Combined Target List

Roles & Responsibilities
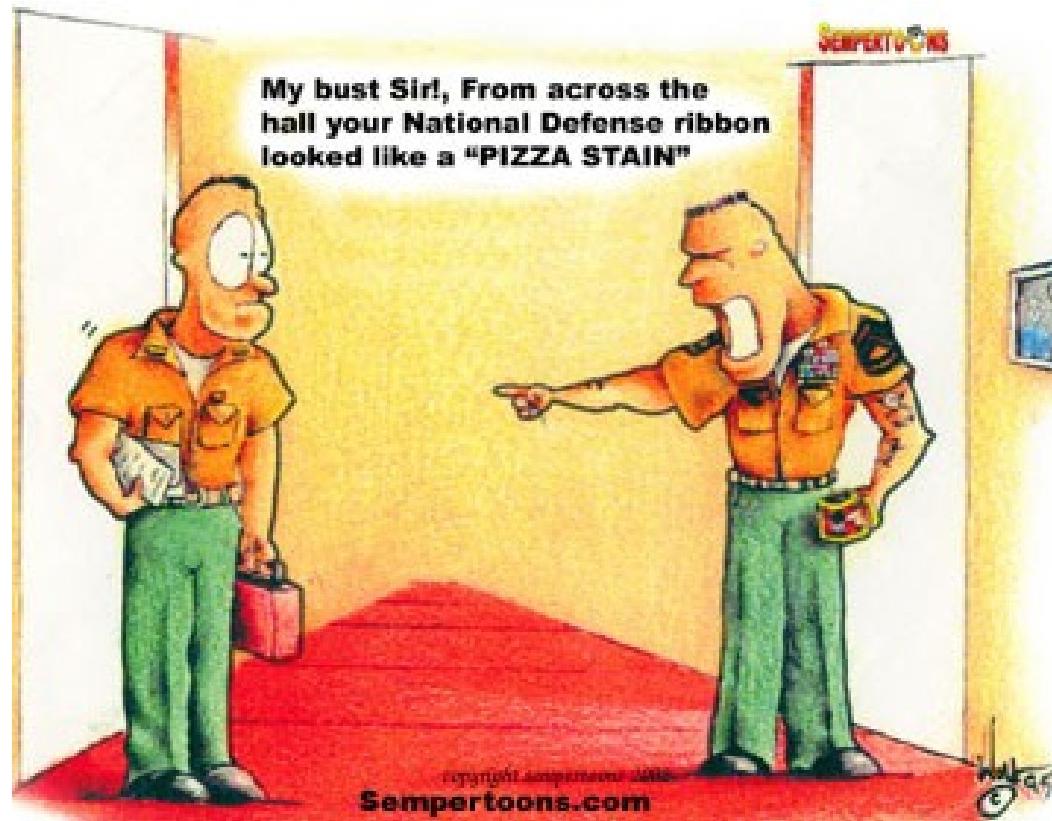
ROLES & RESPONSIBILITIES

CP	Discipline	Echelon	Scope	System
CMP	Maneuver	Battalion Up		IOS v1/IOW
CIP	Intelligence	Battalion Up		IOS v2/IOW
CLP	Logistics	CSSE		GCCS
IAP	Air	ACE		TBMCS
CTP	Ground	GCE		IOS v1/v2
COP	All	MAGTF		GCCS

R&R – COP Manager

- At the MAGTF command level, the COP Manager will be a skilled GCCS operator. The manager will be familiar with the products of all the other Common Pictures that inject data into the COP. This implies an understanding of the warfighting functions and their relationships to the MAGTF Commander's decision making process.

- This individual can have any MOS, but will most likely be a SNCO or Company Grade Officer.

R&R – CTP Manager

- At the GCE Command level, the CTP Manager will be a skilled operator for both the IOS and C2PC. This manager will be expected to have an understanding of tactics and maneuver as well as the intelligence products that support ground operations.

- This individual can have any MOS and will most likely be an SNCO or NCO.

R&R – CMP Manager

- At the Battalion and Regimental level, the CMP Manager will be skilled with IOS v1 & C2PC. This manager will be expected to have an understanding of tactics and maneuver as well as the intelligence products that support ground operations.

- This individual can have any MOS and will most likely be an NCO.

R&R – CIP Manager

- At any level the Common Intelligence Picture Manager will be a proficient operator of the IOSv2. This manager is expected to have an in-depth knowledge of the intelligence process as well as all available intelligence assets at their respective echelon and the content and purpose of those asset's reports. This manager is also expected to have an understanding of tactics and maneuver.

- This individual will commonly have the 0231 MOS and will most likely be an NCO.

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Command Support Relationships

Sempertoons.com

" Captain, The message says.......Pardon us...,
do you have any GREY POU PON !? "

CSR FACILITATION

- COP Synch Tools

- Auto Forward Table

- Broadcast Filters

COP CSR

MEF GCCS

Parent

MEF IOS(v1)

MEF IAS IOS(v2)

Child with Secondary Configuration Privilege

DIV IOS(v1) **Grand Child with Secondary Configuration Privilege** **DIV IOS(v2)**

REGT IOS(v1)

REGT IOS(v1)

REGT IOS(v1)

REGT IOS(v2)

REGT IOS(v2)

REGT IOS(v2)

BN C2PC

BN C2PC

BN C2PC

BN C2PC

BN C2PC

BN C2PC

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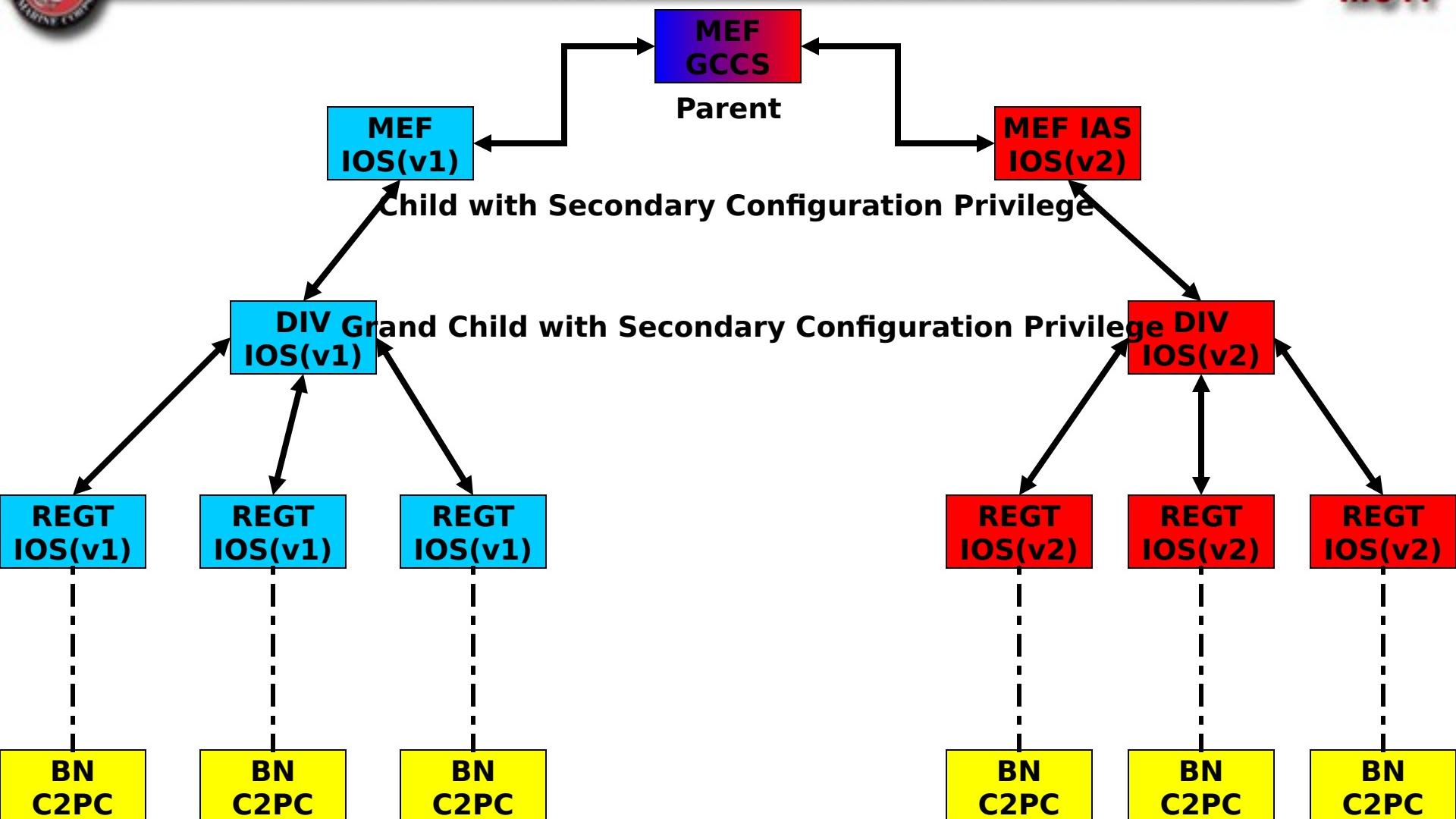
FILTERS

STANDARD SETTINGS

IN Comms Filter: Geo Filter – "*outside*".

OUT Comms Filter: Set *Scope* and *Real/Exercise*.

MEF - Set by GCE	**ADD**	**DEL**	**TK OWN**	**UPDATE**	**MERGE**	**SEC CONF**
Division - Set by MEF	**ADD**	DEL	TK OWN	**UPDATE**	**MERGE**	**SEC CONF**
Regiment - Set by Div	**ADD**	DEL	TK OWN	**UPDATE**	**MERGE**	SEC CONF
Battalion - Set at Gateway	**Tracks sent to IOW via C2PC Gateway**					

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COMMS TO C2PC

- **All that is required of the COP Manager is that a Network Channel be *OPEN*.**
- **All filtering is done at the C2PC Gateway.**
- **The pertinent IOS information must be provided to the C2PC Administrator, i.e. Server IP & Subnet Mask.**

"In this age of computers, bum scoop travels at the speed of light."

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QUESTIONS

COP MANAGEMENT

System Administration

CLASS SCHEDULE

- **Basic UNIX**
- **Configuring the IOS**
- **User Profiles & Accounts**
- **Internet Relay Chat Setup**
- **Sendmail Configuration**

MSTP

Basic UNIX

KERNEL

Core of Solaris (Unix) operating system.

Master program that manages all the resources of the computer

- File systems
- Devices
- Processes
- Memory usage
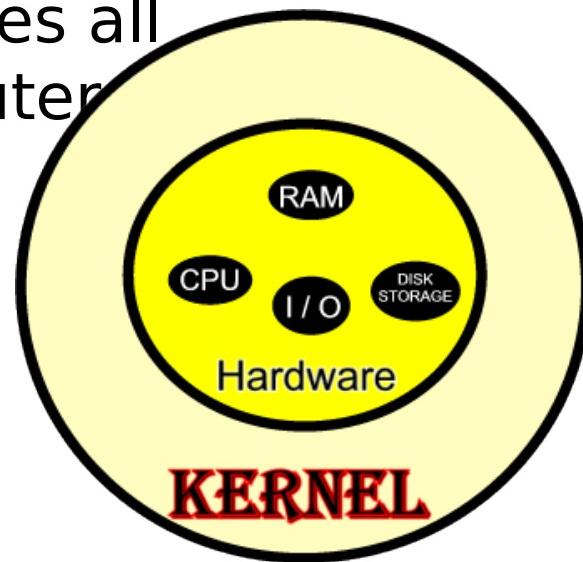
DIRECTORY TREE

- Layout of files and folders on HD

- 2 types of paths

  - Absolute – whole path starting with "root" (/).
  - Relative – relates to the current directory.
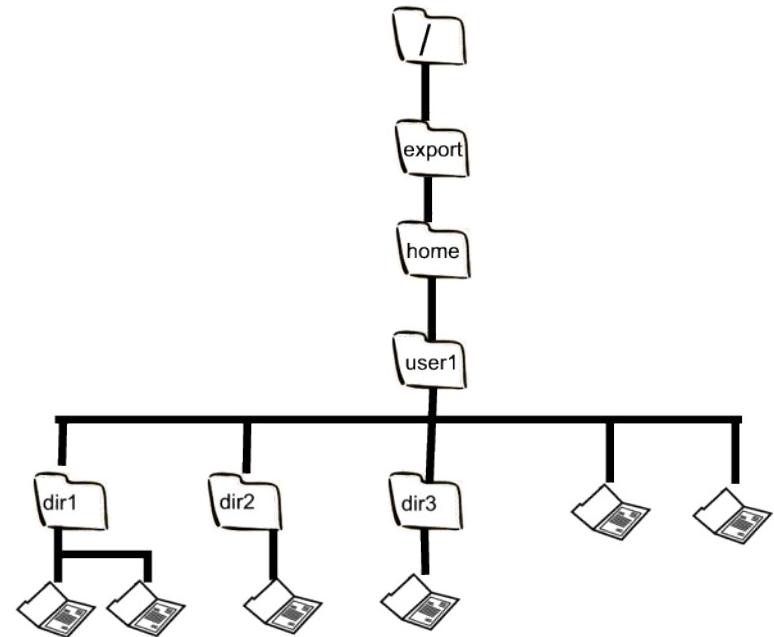
pwd – Print Working Directory

VOCABULARY

- **System** – A logical collection of applications and devices controlled by a single operating system.
- **Application** – A complete, self-contained program that performs a specific function directly for the user.
- **Device** – AKA "peripheral". Any hardware associated with the "system", other than the CPU.
- **Process** – The action of code being executed and the resulting data manipulation.
- **Kernel** – The essential part of Unix or other operating systems, responsible for resource allocation, low-level hardware interfaces, security etc.
- **Shell** - A program which reads textual commands from the user or from a file and executes them.

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UNIX COMMANDS

Command	Usage	What it does
man	man <cmd>	displays man pages
passwd	passwd <login>	sets or changes password
cd	cd <dir name>	changes directory
ls	ls <dir name>	lists contents of directory
touch	touch <filename>	creates a new, empty file
mkdir	mkdir <filename>	makes new directory
cp	cp <filename> <new loc>	copies a file
mv	mv <filename> <new loc>	moves and/or renames a file
rm	rm <filename>	removes file(s)
rmdir	rmdir <empty dir name>	removes empty directory
su	su <username> {passwd reqd}	switches user identity
more	more <filename>	allows scrolling through

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PERMISSIONS

- Within the Unix File Structure each file is given a set of permissions.
- These permissions are based on three categories:
  User : Group : Other
- The permissions are : Read : Write : eXecute
- They are displayed like this:

  User   Group   Other
  rwx   rwx   rwx

- Read permission is assigned a value of – 4 –
- Write permission is assigned a value of – 2 –
- eXecute permission is assigned a value of – 1 –

PERMISSIONS

If:
- "Read" has a value of 4
- "Write" has a value of 2
- "eXecute has a value of 1

Then:
- The permission set rwx has a value of 7
- The permission set r-x has a value of 5, etc…

These must be set for USER, GROUP and OTHER

- The command to set or change permissions is **chmod.**
- The syntax is: **chmod <value> <filename>**
- Example: **chmod 777 hosts.bak**

FILE PERMISSIONS

- The "d" denotes a directory.

- The "l" denotes a linked file.

```
                                        Terminal
 Window  Edit  Options                                              Help
$ su -
Password:
Sun Microsystems Inc.    SunOS 5.8        Generic February 2000
# ls -al
total 602
drwxr-xr-x  25 root      root         512 Jun 10 09:12 .
drwxr-xr-x  25 root      root         512 Jun 10 09:12 ..
-rw-------   1 root      other         71 Jun  3 14:44 .TTauthority
-rw-------   1 root      other         53 Jun  3 14:44 .Xauthority
-rw-------   1 root      other       1040 Jul  2 08:35 .cpr_default
drwxr-xr-x  12 root      other        512 Jun  3 15:10 .dt
-rwxr-xr-x   1 root      other       5111 Jun  3 14:44 .dtprofile
drwxrwxrwx   9 brettd    sysadmin     512 Jul  2 08:35 BADodd
drwxr-xr-x   2 root      root         512 Jun  3 14:44 TT_DB
lrwxrwxrwx   1 root      root           9 Jun  3 13:59 bin -> ./usr/bin
drwxr-xr-x   2 root      nobody       512 Jun  6 07:15 cdrom
drwxr-xr-x  15 root      sys         4096 Jun 11 13:04 dev
drwxr-xr-x   4 root      sys          512 Jun  3 14:18 devices
drwxr-xr-x  41 root      sys         3584 Jun 11 13:04 etc
drwxr-xr-x   3 root      sys          512 Jun  3 13:55 export
drwxr-xr-x   2 root      nobody       512 Jun 25 09:05 floppy
dr-xr-xr-x   1 root      root           1 Jun 11 13:04 home
drwxr-xr-x   9 root      sys          512 Jun  3 13:59 kernel
lrwxrwxrwx   1 root      root           9 Jun  3 13:59 lib -> ./usr/lib
drwx------  14 root      root        8192 Jun  3 13:55 lost+found
drwxr-xr-x   2 root      sys          512 Jun  3 13:59 mnt
dr-xr-xr-x   1 root      root           1 Jun 11 13:04 net
drwxrwxr-x   6 root      sys          512 Jun  3 14:29 opt
drwxr-xr-x  19 root      sys          512 Jun  3 14:00 platform
dr-xr-xr-x  54 root      root      254144 Jul  2 08:36 proc
drwxr-xr-x   2 root      sys         1024 Jun  3 14:02 sbin
drwxrwxrwt   7 root      sys          719 Jul  2 08:35 tmp
drwxr-xr-x  33 root      sys         1024 Jun  3 14:29 usr
drwxr-xr-x  30 root      sys          512 Jun  3 14:34 var
dr-xr-xr-x   6 root      root         512 Jun 11 13:04 vol
dr-xr-xr-x   1 root      root           1 Jun 11 13:04 xfn
# 
```

MSTP

IOS Configuration
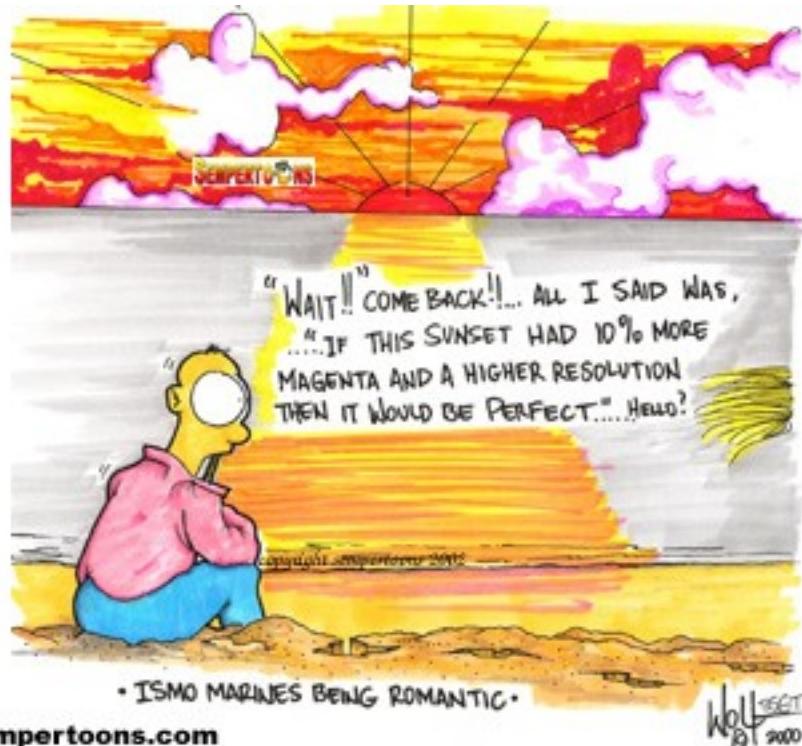
VITAL STATISTICS

The following information is vital to the successful install and configuration of your IOS and may be obtained from your G-6/S-6 Syscon:

- **Hostname**
- **IP address**
- **Default Gateway**
- **Netmask**
- **Primary Nameserver (DNS)**
- **Secondary Nameserver (DNS)**
- **Domain Name**

**Keep this information in hard copy with your system at all times.

TROUBLESHOOTING

Files to start with when troubleshooting:

- /etc/nodename
- /etc/hostname.hme0
- /etc/hosts
- /etc/inet/hosts

These files contain information about your host and the hosts you routinely communicate with.

- /etc/networks
- /etc/netmasks
- /etc/defaultrouter
- /etc/resolv.conf
- /etc/nsswitch.conf

These files contain information about your network and DNS.

99% of all UNIX problems are permissions related.

IOS CONFIG WIZARD

- Login as Sysadmin

- Click on **Network**

- Select
  Configuration Wizard

Configuration Wizard

File   Options   Help

System | DNS | DII-COE | Advanced

Hostname ←

Hostname: ioscomms

IP Address ←

IP Address: 205.9.77.174

Default Gateway ←

Default Gateway: 205.9.77.190

Subnet mask ←

Netmask: 255.255.255.224

Network Address: 205.9.77.160

OK   Apply   Cancel

58
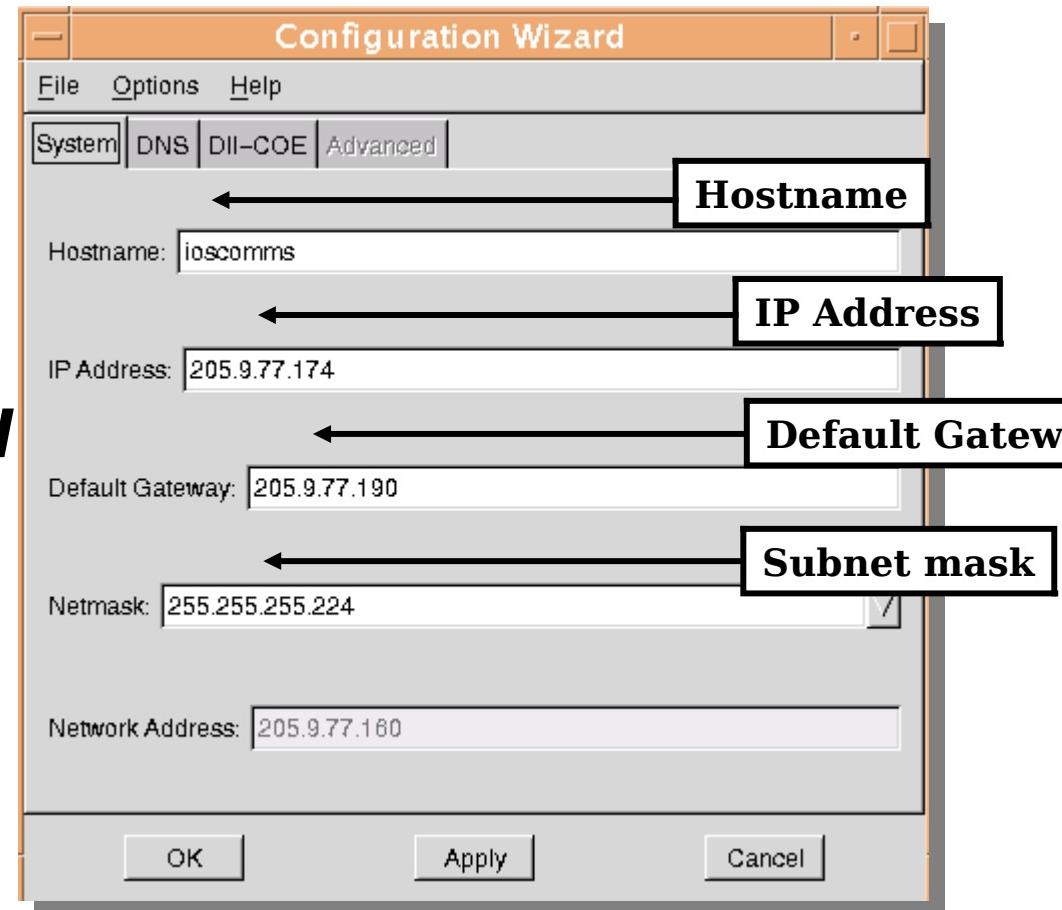
IOS CONFIG WIZARD

- Enter the **IP of the Primary Nameserver** and a Secondary if applicable.

- Enter **hosting DNS domain** as "search domain".

- **Apply**

Configuration Wizard

File   Options   Help

System | DNS | DII-COE | Advanced

Primary Nameserver: 209.29.242.98 ← **Primary Nameserver**

Secondary Nameserver: NOT_SET ← **Secondary Nameserver**

Search Domain: spawar_chas.navy.mil.mil ← **Search Domain**

OK   Apply   Cancel

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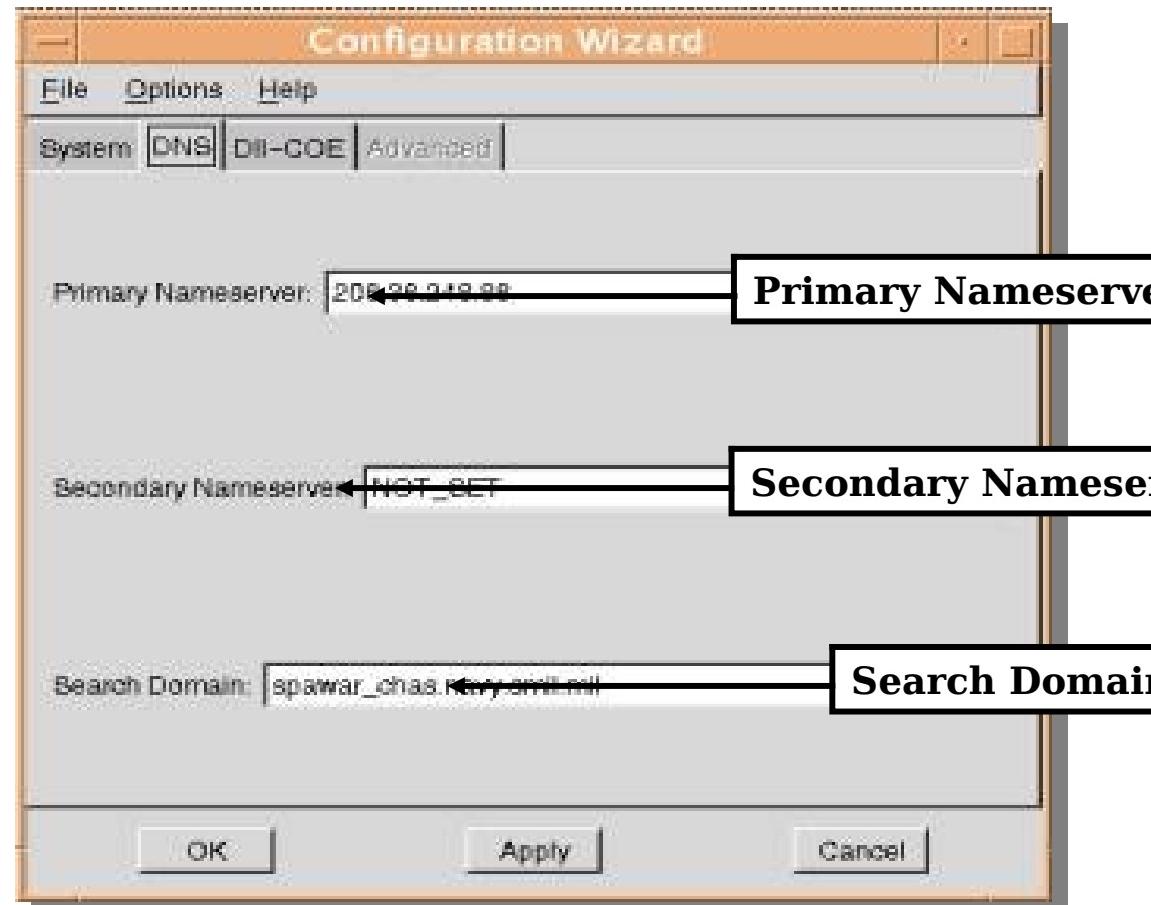
IOS CONFIG WIZARD

MSTP

- This is preconfigured on install.

- The selections will differ from a v1 to a v2.

IOS CONFIG WIZARD

- Input hostname and IP address of relevant systems.

File   Options   Help

| System | DNS | DII-COE | Advanced | Hosts |

IP Address	Hostname	Aliases
127.0.0.1	localhost	
138.156.24.165	batman	mailhost loghost
138.156.24.144	afatds	
138.156.24.135	tbmcs-1maw	
152.145.112.2	gccs-pacom	
144.136.22.133	ios-divg2	

| Add | Edit | Delete | Save |

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DDN HOST TABLE

- ***TMS/UCP>>Comms>>Config DDN Host Table***

- The "*DDN Host Table*" is used to store a list of hostnames for the purpose of configuring Network Communication Channels.

- The "*UPDATE*" option (**right click**) reads the */etc/host* file and places the files contents into the DDN Host Table.

NET HOSTNAME TABLE — PRIMARY

UHID HOSTNAME   ADDRESS   SOURCE   REMARKS

HELP ..
ADD ..
EDIT ..
DELETE
UPDATE
SELECT ALL
UNSELECT ALL
PRINT
PRIMARY
ALTERNATE
SET PRIMARY
SET ALTERNATE
ARCHIVE ..
RESTORE ..
OK
CANCEL

ADD   EDIT   DELETE   CANCEL

ADD HOSTNAME

UHID ....
HOSTNAME ..
ADDRESS ..
REMARKS ..
INTERNAL ..

-OK-   CANCEL

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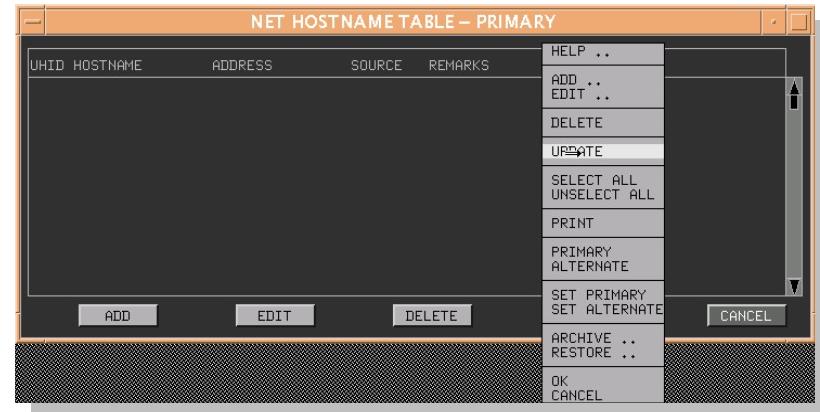
WAN UID

- ***TMS/UCP>>Comms>>Set WAN UID***
- The "*WAN UID*" is a three-character code, which is assigned to tracks upon creation. It is used when the system is in UID correlation mode, and is displayed in the track edit window in a non-editable field.
- The "*WAN UID*" is critical to the integrity of the Data Defense Network's (DDN) contact database and is therefore a unique site address for each Wide Area Network (WAN).
- When All Config is finished, ***REBOOT.***

Set WAN UID

Enter Machine UID:

IOS

OK   Cancel

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LAB

Practical Exercise

- Configure the IOS to come up on the network
- Configure the Host table, WAN UID, DDN Host table

USERS

User Profiles & Accounts

DEFAULT ACCOUNTS

MARINE   Default user account.

SYSADMIN   Configuration & troubleshooting.

SECMAN   Builds accounts, profiles.

ROOT   Super user.

CREATING AN ACCOUNT

- Login as Secman
- Open **Security Manager** under SSO Default
- **View>>Users** (Scope is important)
- **File>>New User**
- Assign appropriate information and profiles.

File   Edit   View

User Catalog

Local Scope ▾

Login	User Name	UID	GID	Scope	Unix Groups
SA	System Admin Sy	60	1	local	other
SSO	Security Admin S	50	36	local	admin
adm	Admin	4	4	local	adm, lp, sys,
bin	/usr/bin	2	2	local	bin, sys
daemon	/	1	1	local	adm, bin, dae
irc	irc daemon	219	6	local	mail
listen	Network Admin	37	4	local	adm
lp	Line Printer Admi	71	8	local	lp
marine	marine	1502	100	local	COE, ftp, gcc

Use Shift+Button2 to resize columns

CREATING AN ACCOUNT

Login name no greater than 8 characters

System provided number

Logical user name

New User

Login Name: [   ]   UID: [1504]
Password: [   ]   Password Confirmation: [   ]
User Name: [   ] Scope: [Local ▾]

Default Profile:

Available	Assigned
SA Default SSO Default ios	

Optional Groups:

Available	Assigned
COE adm admin bin daemon ftp	

Profiles:

Available	Assigned
L:SA Default L:SSO Default L:ios G:SA Default G:SSO Default	

To assign, double click Available item. To unassign, double click Assigned item.

[OK]   [Reset]   [Cancel]

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UNLOCKING AN ACCOUNT

- 3 failed login attempts

- Go to **Unlock Users** in the SSO_Default Apps.

- Click on **Host** and **User**.

- Under **Users** pulldown menu select **Clear Login Failures**

User Account Information

Users   View

Update for Selected Host	^U
Clear Login Failures	
Exit	^E

mstpv2

User
```
I  secman (101)
-  SA (60)
-  sysadmin (100)
-  GCCS (800)
-  irc (219)
-  marine (1500)
-  dns (135)
-  ios (1501)
-  admin (1502)
```

User Name: sysadmin   User ID: 100   Group ID: 1

Account Access: ENABLED

Full Name: System Admin USER Account

Office:

Office Phone: Home Phone:

Organization:

Social Security Number: Rank:

Home Directory: /h/USERS/local/sysadmin/Scripts

Login Shell: /bin/csh   File Server:

Login Failures: Last Login Failure:

Groups: other,mail,lp,COE,admin,terminal,su,shutdown,dns

Last Login: 08:52:48 PM GMT Mon, Dec 01, 2003

Results

CSEXDM_clear_failures: No failure info recorded for sysadmin

UNLOCKING AN ACCOUNT

Work Around

- Log in to Sysadmin
- Open **DTTERM**
- **SU** to root
- **cd /h/COE/Comp/CSEXDM/bin**
- **./CSEXDM_clear_account_failures (account name)**
- After the account is unlocked, the core file must be removed
- **cd /**
- **rm core**
- **ls** to ensure the file is gone.

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LAB

Practical Exercise

- Create an account
- Lock the account
- Unlock the account

IRC

Internet Relay Chat Setup

IRC Server Select

- Login as Sysadmin

- *Network>>Servers>>Set IRC>>Stop Server*

- Input the **root** password
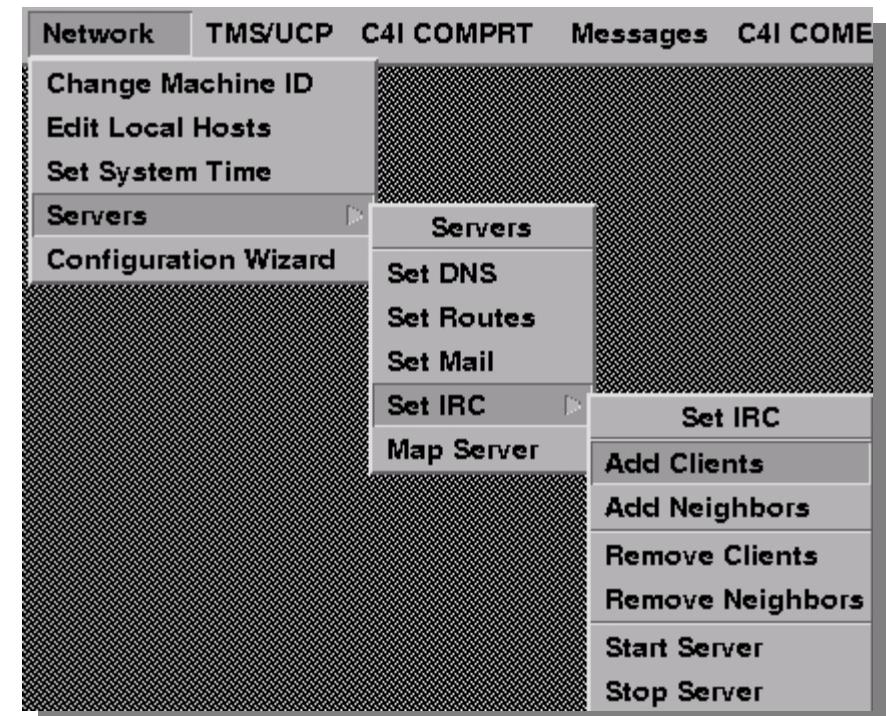
IRC Server Select

- ***Network>>Servers>>Set IRC>>Configure Server***

- Enter the appropriate information.

- ***Start Server*** (requires Root Password)

Hostname	batman
Command Name	MSTP
Description	IRCS for MSTP
Admin Email	sysadmin@batman.ios.mstp.quantic

Apply Close Reset

IRC Client Configuration

- Launch **IRCC Client** under Application Manager.

- Type in **IRC Server IP address.**

- Once connection is complete the Channel button will be shown.
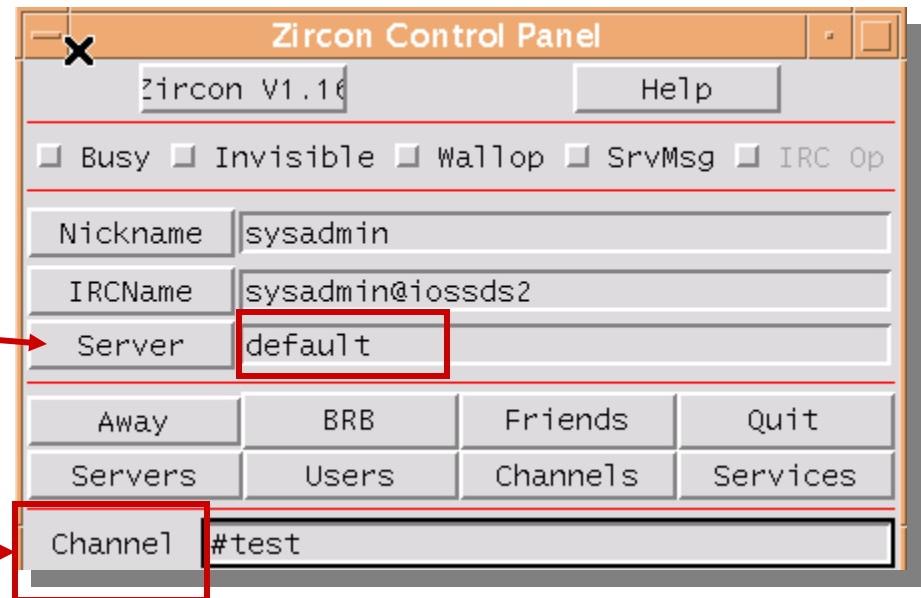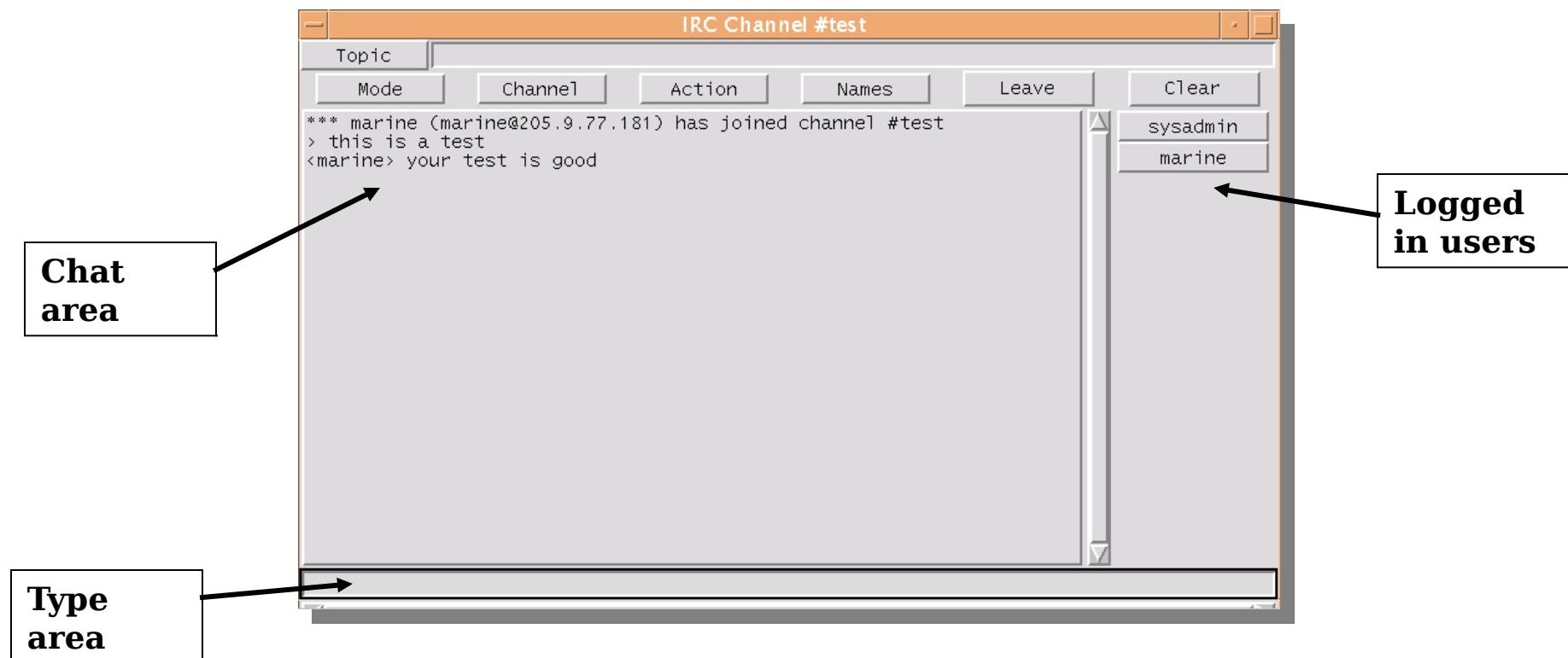
75

IRC Client Test

Logged in users

Chat area

Type area

Sendmail

SENDMAIL SERVER

- To establish your IOS as a mail server you need to give your FQDN and IP to the G-6.
- ***Network>>Servers>>Set Mail***
- Select "***This System is Mail Server***"
- Enter ***Fully Qu*** *Name* ***(FQDN).***
- ***OK***

Mail Server IP Address

☑ This system is mail server

Domain Suffix for this system

batman.ios.mstp.quantico.

OK   Cancel
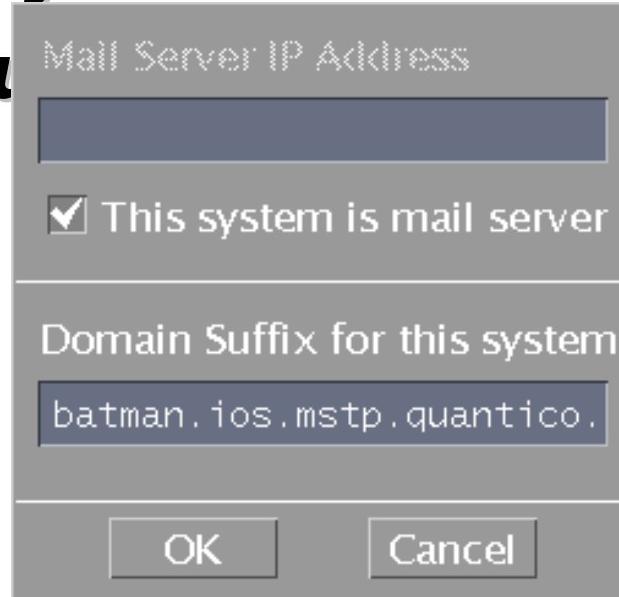
SENDMAIL SERVER

- **vi** the /etc/resolv.conf file.

- The domain should be your FQDN.

- The nameserver should be the hosting DNS.

- The search should be the hosting DNS' domain.

```
Window  Edit  Options                                          Help
batman% more resolv.conf
domain batman.ios.mstp.quantico.usmc.mil
nameserver 138.156.24.250
search mstp.quantico.usmc.mil
batman%
```

SENDMAIL SERVER

- ***Messages>>Manage Profile Email Aliases***
- Change Postoffice and Router to ***local host.***
- Select ***User or Enter New Name***
- Check "***New User Alias***" option
- ***Apply***
- *Cancel*

```
USER NAME                    POSTOFFICE              ROUTER
marine                       batman                  batman
sysadmin                     batman                  batman
secman                       batman                  batman
```

Enter Text For Search:

Default Postoffice:	batman
Default Router:	batman
Enter New Postoffice:	batman
Enter New Router:	batman
Enter New User Name:	

Apply Postoffice/Router To:
- ☐ Configuration Defaults
- ☐ Selected Users
- ☐ New User Alias

| Apply | Delete | Sort | Deselect | Cancel | Help |
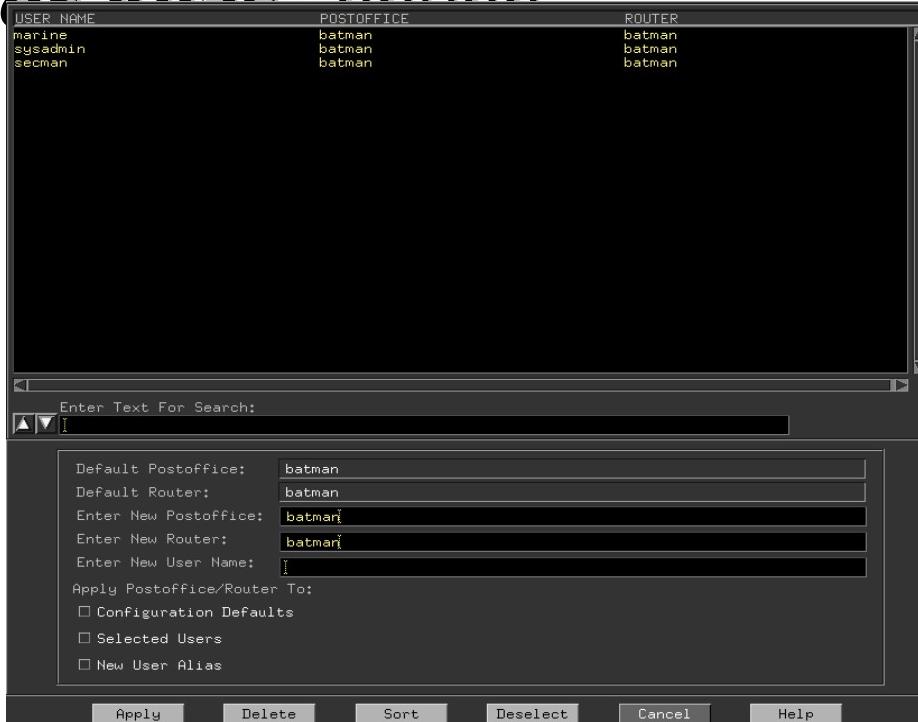
NETSCAPE CONFIGURATION

- Reading Outlook mail on the IOS using Netscape:
  - *Open Netscape*
  - *Select Edit>>Preferences*
  - *Select Identity*
  - Your e-mail address will be:

    Username@FQDN
  - *OK*
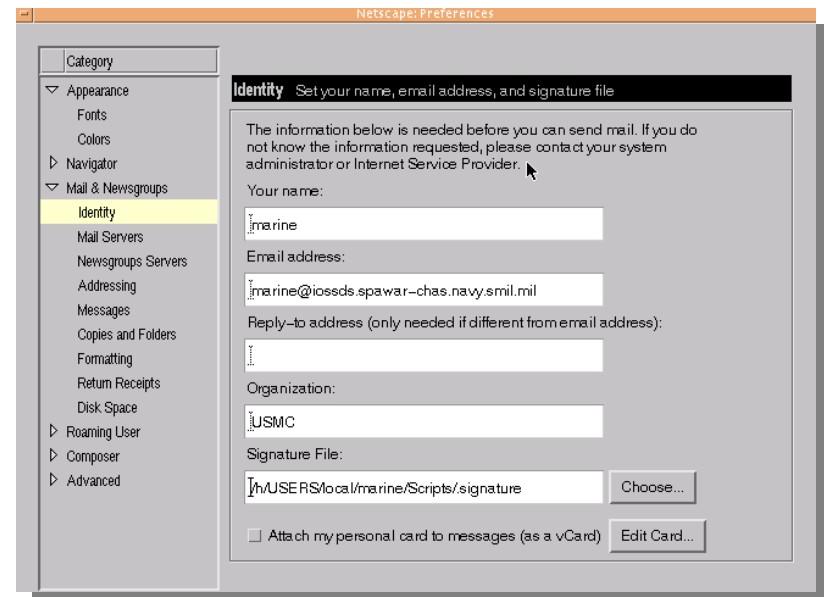
NETSCAPE CONFIGURATION

- Select **Mail Server**
  - – **Delete current Server**
  - – **Add Server>>MoveMail**
  - – **OK**

82
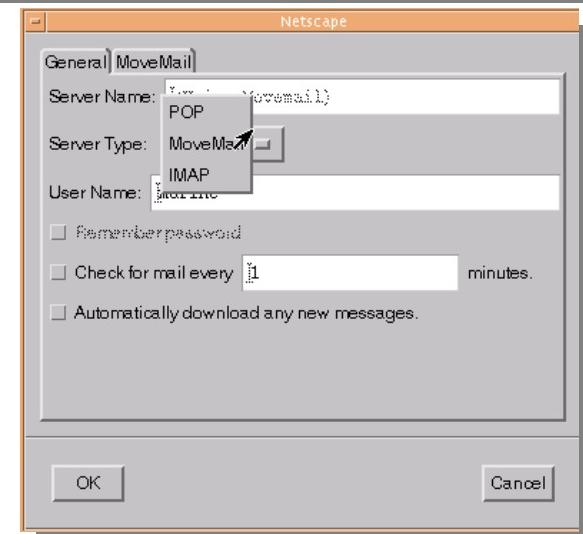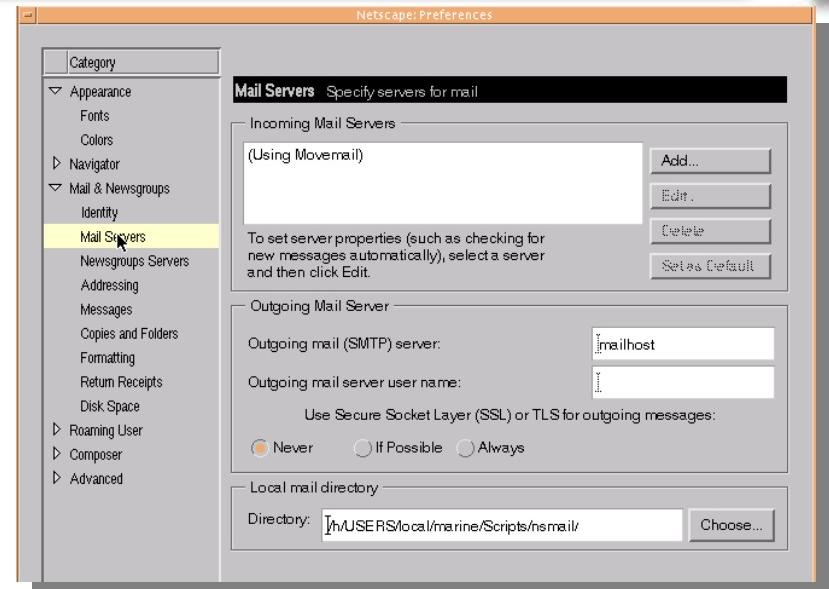
SENDMAIL SERVER

- Login in as MARINE

  - ***Click on Comms >> Email Table***
    - Add an entry for everyone to whom you will be forwarding e-mail.
  - ***Click on Comms >> Auto-Forward Table***
    - Add an entry for all msg traffic that you want the IOS to automatically forward to an entry within the Email Table.

SUMMARY

- **IOS overview**

- **IOS Configuration**

- **Account Manageme**

- **IRC Server Configuration**

- **Sendmail Server Configuration**
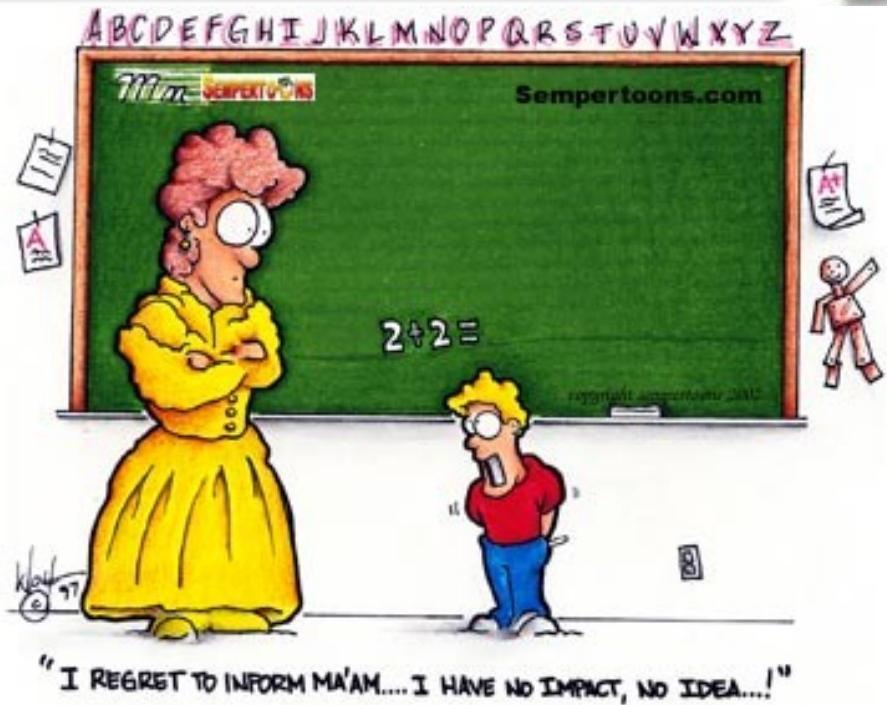
QUESTIONS
????

COP MANAGEMENT

Track Processing and Manipulation

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CLASS SCHEDULE

- **COP Synch Tools**
- **Track Database Management**
- **Additional Features**

CST

Configuring the IOS with the COP Synchronization Tool

COP SYNC TOOLS

MEF GCCS

Parent

MEF IOS(v1)

MEF IAS IOS(v2)

Child with Secondary Configuration Privilege

DIV IOS(v1)

Grand Child with Secondary Configuration Privilege

DIV IOS(v2)

REGT IOS(v1)

REGT IOS(v1)

REGT IOS(v1)

REGT IOS(v2)

REGT IOS(v2)

REGT IOS(v2)

BN C2PC

BN C2PC

BN C2PC

BN C2PC

BN C2PC

BN C2PC

90
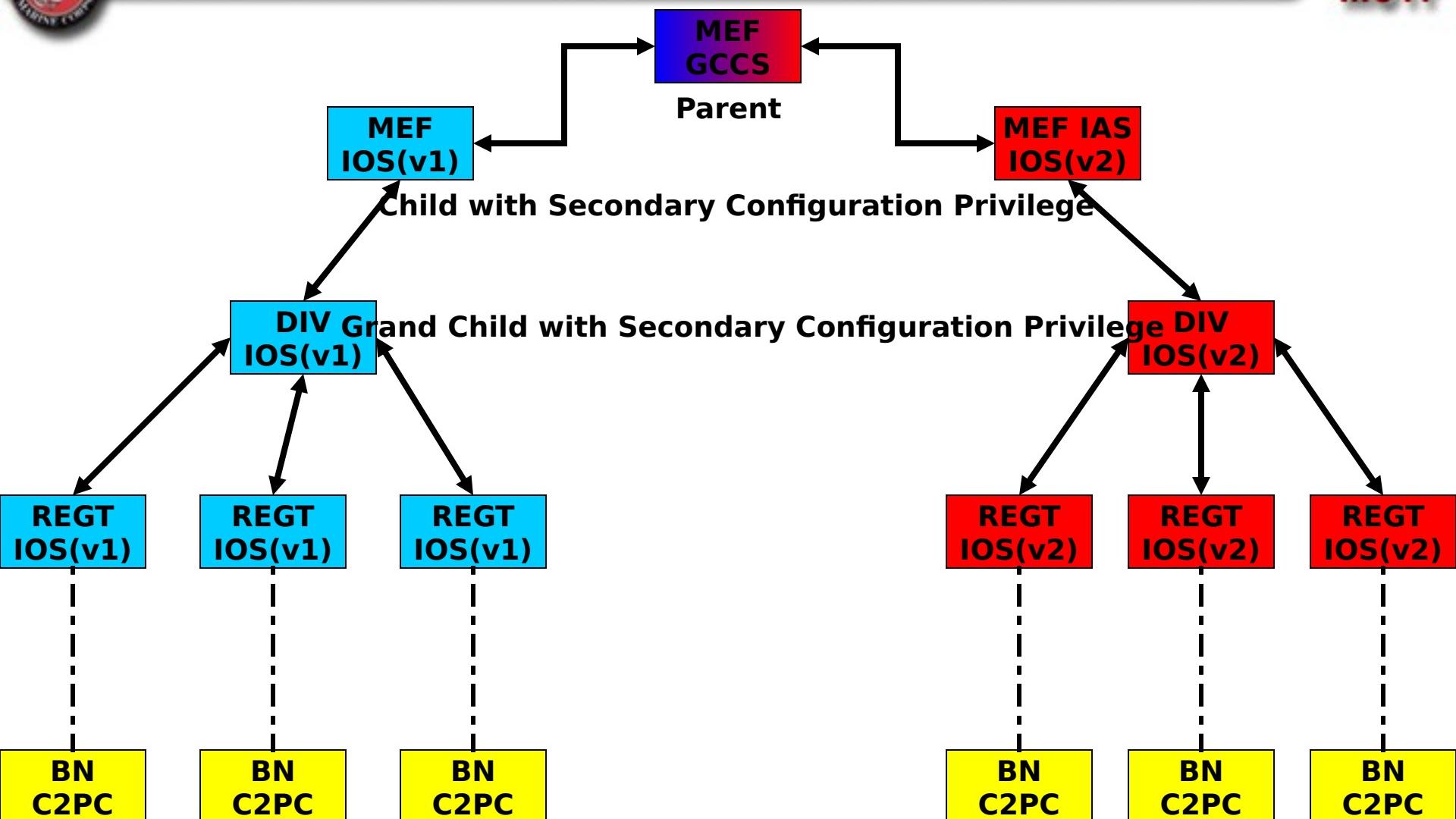
COP SYNC TOOLS

- **Log in as Marine**
- **Need to turn on a Network channel**
  - C2PC Gateway
  - AFATDS interface
- **Need to add a CSTMDXNET**
  - Direct synchronization of database

COMMUNICATIONS

NAME	XRF	INT	INTERFACE	MACHINE	DEVICE	STARTUP	STATUS
NAV-CVNS	NAV	INT	CVNS	ACHILL	TTYC4	MANUAL	OFF
LINK14	L14	INT	LINK14	ACHILL	TTYC5	MANUAL	OFF
HIT-BCST	HIT	INT	SERIAL	ACHILL	TTYC6	MANUAL	OFF
FLT-BCST-1	FB1	INT	SERIAL	ACHILL	TTYC7	MANUAL	OFF
NAV-WSN5	NAV	INT	WSN5	ACHILL	NTDS0	MANUAL	OFF
NAV-WRN6	NAV	INT	WRN6	ACHILL	NTDS0	MANUAL	OFF
NAV-SDMS	NAV	INT	SDMS	ACHILL	NTDS0	MANUAL	OFF
ACDS	CDS	INT	ACDS	ACHILL	NTDS0	MANUAL	OFF
MDXNET	MDX	INT	CSTMDXNET	ACHILL	MDX	MANUAL	ON
TRACKS	TRK	INT	NETPREC	ACHILL		MANUAL	OFF

ADD   EDIT   DELETE   EXIT

COP SYNC TOOLS

Add a Unique Name

Add a Unique XREF
Leave "Internal" at Default Value

Select CSTMDXNET

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COP SYNC TOOLS

COP SYNC TOOLS

CST Node List:

- Lists all subordinate nodes
- Displays configuration privileges

Figure 19A

Figure 19B

COP SYNC TOOLS

- **Permissions**
  - Authority granted to a node to perform specific track management functions
- **Filtering**
  - Controlling data that is passed
- **Secondary Configuration**

Figure 20

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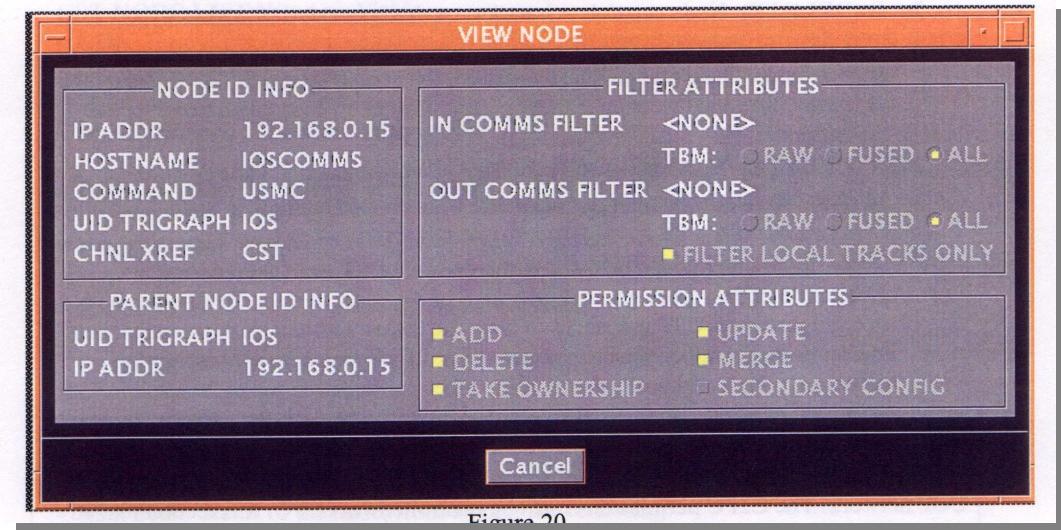
MSTP

- **Plot Control>> Track Control**

  -Can filter the tracks that are being passed

  DON'T CHANGE THIS DURING AN EXERCISE OR OPERATION WITHOUT COORDINATING WITH OTHER TRACK MANAGERS

96
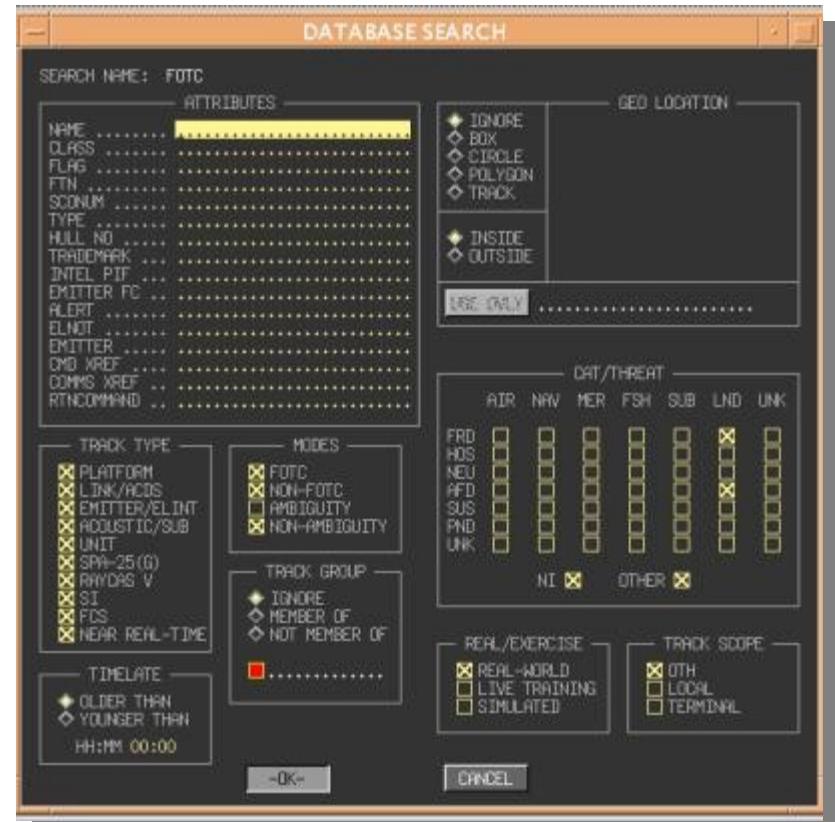
CST TOPOLOGY

- You have the ability to see the   topology of the CST.

- This is color coded to help with the status of each IOS

LAB

Practical Exercise
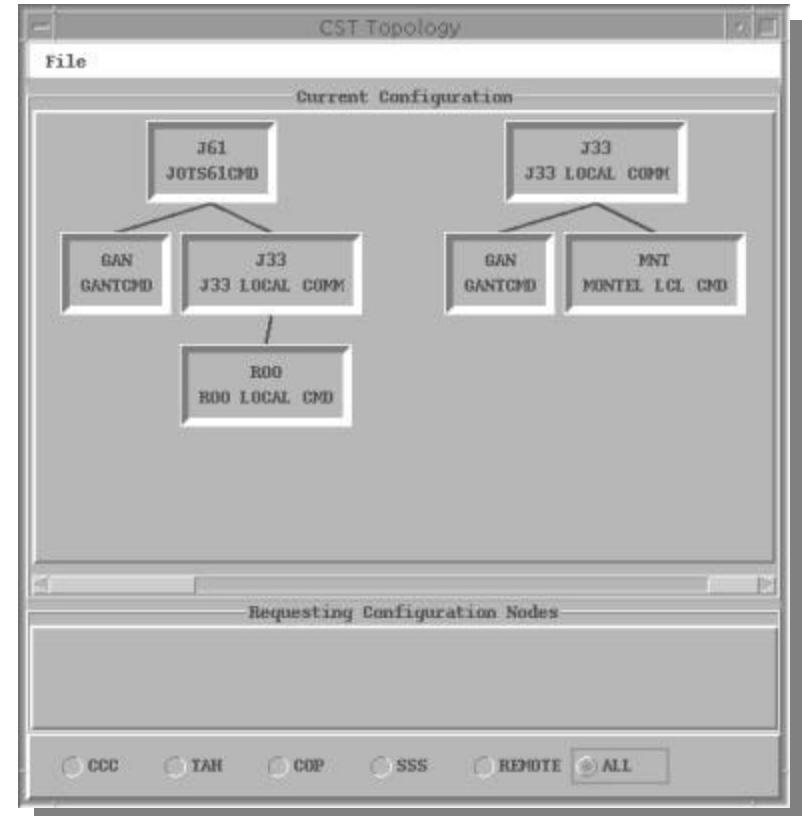
- Establish MDXNET channel
- Configure COP Sync Tools
- Check CST Topology

Track Database Management

TDBM

- ***Tracks>>New Track/New Unit>>Position***

- Position

- Can either be put in manually or by   clicking on the map

- Click on **OK** when completed

TDBM

- This information <u>must</u> be consistent at all command levels.

- The long name needs to be the same as listed in the Joint Master Unit List on the AFATDS system for Friendly forces.

QUICK REPORT

- ***Select Track>>Right Click>>Quick Report***

- The Quick Report function is used to update positional information for tracks.

- Positional information includes location, course, speed, Altitude/Depth, AOU parameters, source and sensor selection.

- The QUICK REPORT window is identical to the ENTER FIRST REPORT window that you used when creating a track.

- Update the data as desired and click the **OK** button.

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TRACK SUMMARY

- ***Highlight Required Tracks>>Right Click>>Selected Summary***

- This menu choice displays a summary of information for the selected tracks.

- TRACK NAME, TLATE, ECHELON, ORG TYPE and CURRENT POSITION are the column headings provided on the Selected Summary window

PLOT CONTROLS

- **Plot Control>>Symbol Labels**

- The Symbol Labels menu option allows you to control three aspects (annotation, text size, and symbol size) of how the tracks and track labels will look on the display.

SYMBOL LABELS

SYMBOL ANNOTATION

◆ LOCAL TRACK # (LTN)	◆ SHORT NAME	◆ TRADEMARK
◆ FOTC TRACK # (FTN)	◆ NAME	◆ SCONUM
◆ UNIQUE ID (UID)	◆ CLASS	◆ CALLSIGN (IRCS)
◆ SYSTEM TRACK # (STN)	◆ TYPE	◆ ELNOT
◆ COMBAT SYS TRACK #	◆ HULL #	◆ EMITTER
◆ DISCRETE ID (DI)	◆ TYPE-HULL#	◆ RF
◆ MODE 2 IFF (PIF)	◆ SHORT NAME/TOE	◆ PRI
◆ UNIT ID CODE (UIC)	◆ SHORT NAME/TIMELATE	◆ PRF
◆ BE #	◆ SHORT NAME/# REPORTS	◆ SCAN RATE
◆ CMD-TRACK # (RTN)	◆ SHORT NAME/LAT-LONG	◆ LAT-LONG
◆ FLAG (COUNTRY CODE)	◆ SHORT NAME/BRG-RANGE	◆ BRG-RANGE
◆ ALERT	◆ SENSOR	◆ NO LABEL
	◆ SOURCE	

TEXT SIZE
- ◆ TINY
- ◆ SMALL
- ◆ MEDIUM   NUM CHAR ▓
- ◆ LARGE
- ◆ HUGE

SYMBOL SIZE
- ◆ TINY
- ◆ SMALL
- ◆ MEDIUM
- ◆ LARGE
- ◆ HUGE

APPLY   EXIT

104

PLOT CONTROLS

- ***Plot Control>>Symbols On/Off/Dots>>Cat/Threat***

- The Symbols On/Off/Dots option specifies how different track types are to be displayed; with standard symbols, as dots, or not at all.

- This helps to eliminate congestion and confusion.
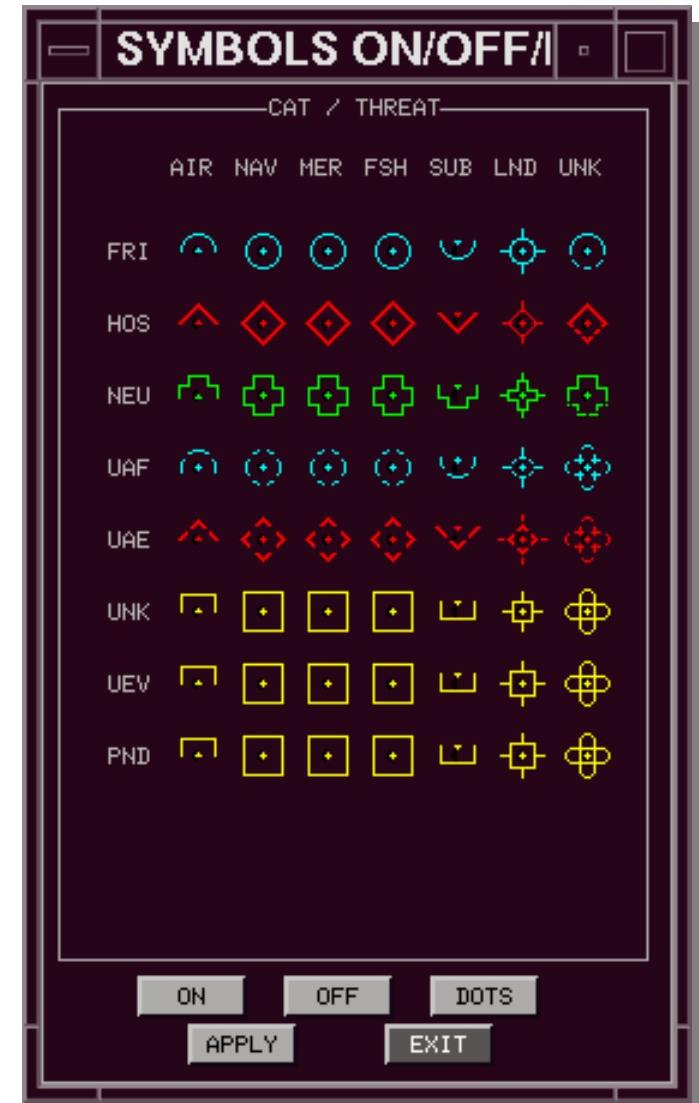
PLOT CONTROLS

- ***Plot Control>>Symbols On/Off/Dots>>Units>> Ech/Threat***

- Similar to the Cat/Threat Window, this window also displays a matrix with the threat rows.

- This table also displays echelon levels.

- The window operates exactly as the Symbols On/Off/Dots (Cat/Threat) Window.

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PLOT CONTROL

- ***Plot Control>>Symbols On/Off/Dots>>Units>>Misc_Echelons***

- Displays a matrix with unit echelons.

- Helps eliminate congestion by filtering the view based on echelon.

SYMBOLS ON/OFF/DOTS

MISCELLANEOUS ECHELONS

AIR		NAV		TSK		MISC B-F		MISC G-Z	
ARMY	—	DET	•••	ELMT	—	BRDHQ	¦	GP	‖‖
CMD	¦	DIV	XX	FOR	—	CMBTCMD	—	GPFRCS	—
CO	••	FOR	—	GP	—	CMD	—	GPFRNT	—
CRPS	XXX	GP	‖‖	UNIT	—	DAG	XX	KMDTR	—
DET	•••	SEC	••			DET	•••	NDHQ	¦
DIV	XX	SQ	—			F	—	NONE	—
ELMT	••	TE	—			FLT	—	NFLT	—
FLT	—	TF	—			FRNT	—	OTRYD	—
GP	‖‖	TG	—					PTRL	•
RGT	‖‖	TU	—					RAG	‖‖
SQ	‖							THTA	—
WG	XX							ZASTRV	—

DYNAMIC DECLUTTER

- *Plot Control>>Declutter>>*

- When tracks start to clutter you can de-clutter multiple ways.

  - Dynamic De-clutter

  - De-clutter Freeze

  - No De-clutter

- With the Dynamic Declutter, the tactical display will be de-cluttered every two minutes or whenever there are 100 changes to the display.

B1BN8
COBRA1
COBRA2
U00030
U00030

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MISC.

Additional Features

MISC
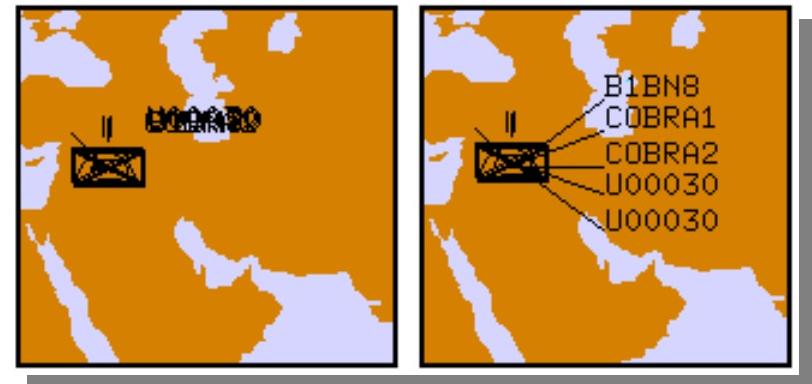
# TIME SYNCHRONIZATION BETWEEN C2PC & IOS

C2PC SET TIME

- Login to PC as Administrator

- Open C2PC and select *Set time*

- Select *TCP protocol under Options*

- *Select UB Host Timebase under Options >> Timebase>> Local Timebase*

- Click on *Query Timebase & Correct System Clock*

SetTime

File   Options   Reset   Help

Query Current Timebase

14:17:47

Query Timebase & Correct System Clock

TCP

111
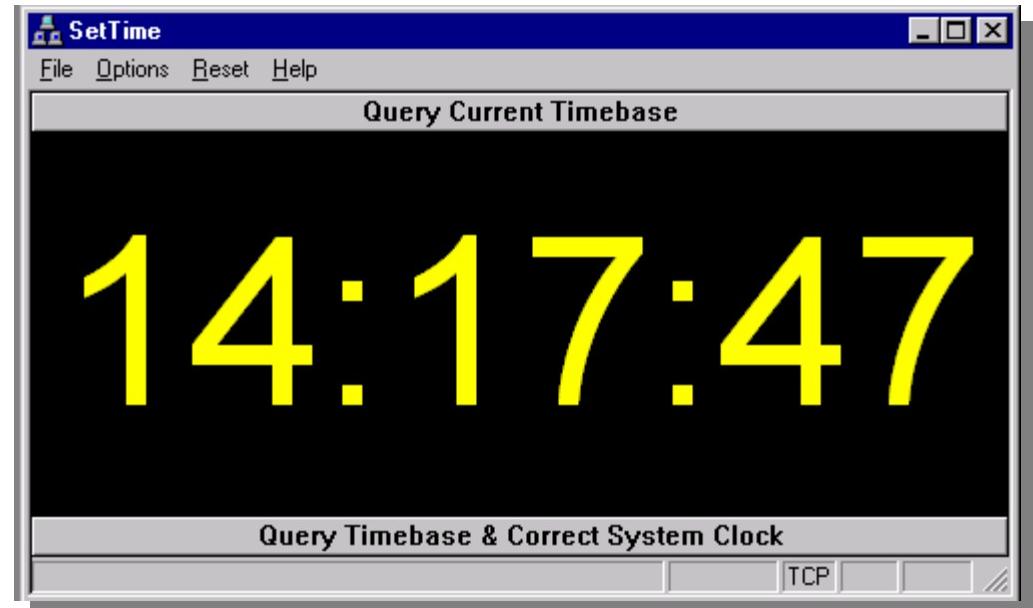
SUMMARY

- **COP Sync Tools**
- **TDBM**
- **Tips and Tric**

"LET ME GUESS!?.....
.....YOU NEED A
TIGHTER GRIP
AND SOME ASPIRIN!!"

Sempertoons.com

QUESTIONS

MAGTF STAFF TRAINING PROGRAM

DOCEMUS PRIMAM ACIEM

LAB

- With the Instructor playing Top COP and using an IOW provided by MSTP, create a tactical network in the classroom, configure your C2PC gateway, create and manage tracks, and build and transmit operational overlays

CONTACT INFO

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